M68HC05AG/AD
REV. 2

HC05

M68HC05 APPLICATIONS GUIDE

MOTOROLA

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Applications
Guide

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Instruction Set Details

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SECTION 1
INTRODUCTION

Welcome to the world of microcontrollers!

In this applications guide, we will develop a project using a Motorola MC68HC705C8 microcontroller unit (MCU) in a familiar application — a home thermostat. The MC68HC705C8 is a member of the M68HC05 Family of MCUs. The project will demonstrate only a few of the many possible microcontroller functions that you can use.

This guide assumes that you have no knowledge of microcontrollers and no MCU applications experience.

Section 1 begins with definitions, gives background information, and describes computer systems. An overview of microcontroller applications is also presented and an application project is discussed.

Section 2 describes in detail how microcontrollers operate.

Section 3 contains functional data for the Motorola MC68HC705C8 MCU. This section gives you specific information needed to use this MCU in an application. More information can be found in slightly different form in BR594/D, the *MC68HC705C8 Technical Summary*, which is available separately.

Section 4 shows you how to develop applications and gives you the thermostat project details.

Appendix A provides a detailed description of each instruction in the MC68HC05 instruction set.

Appendix B contains review questions, answers, and explanations.